

RECEIVER AND METHOD THEREFOR

Abstract of the Disclosure

5 Embodiments of the present invention relate generally to receivers. One embodiment relates to a digital FM receiver having multiple sensors (e.g. antennas). In one embodiment, the digital receiver includes a baseband unit having a channel processing unit. In one embodiment, the channel processing unit is capable of calculating or estimating a phase difference between the incoming signals prior to combining them. One embodiment uses phase estimation method for diversity combining the signals while another embodiment utilizes a hybrid phase lock loop method. Also, some embodiments of the present invention provide for echo-cancelling after diversity combining. An alternate embodiment of the channel processing unit utilizes a space-time unit to diversity combine and provide echo cancelling for the incoming signals. Other embodiments of the present invention allow for the incoming signals from the multiple antennas to pass through the baseband unit uncombined, where the incoming signals may have different data formats.

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